Phase End Project <u>Taxi Service Automation using TestNG, Jenkins, Docker, AWS</u>

Step1:

Create a maven project and add the dependencies for testing and chromedriver and perform maven install. Run the test scripts generate the report in the target output folder. Convert the file to a .jar using maven package. Used Goibibo web for taxi services tests

Step2:

Connect to a EC2 instance in AWS cloud install jdk and create a dir to get the jar file using sudo wget <rawlink from github> if its a spring boot project jar file the output will be displayed in a json format, here my jar file is of maven testing and to run the jar ,java -jar <jarfilename> , you can see the output i http://<publicip>:80/<uri>

Step3:

Create a jenkins pipeline and in the pipeline add the jenkins txt part and save. Now build and in the console the jar file will be automatically create, with docker image. And in the docker console we can create and image and then push that image to the docker hub using docker commands.

TestNG.class

package com.test;

import org.openqa.selenium.By; import org.openqa.selenium.Keys; import org.openqa.selenium.WebDriver; import org.openqa.selenium.WebElement; import org.openqa.selenium.chrome.ChromeDriver; import org.openqa.selenium.interactions.Actions; import org.testng.annotations.AfterSuite; import org.testng.annotations.BeforeSuite; import org.testng.annotations.BeforeTest;

```
import org.testng.annotations.Test;
public class Taxiservicetest {
       //initializing the public contents
       public WebDriver driver;
       public String baseURL="https://www.goibibo.com/cars/";
 @Test(priority=4)
 public void logintest() {
         WebElement
loginorsignup=driver.findElement(By.xpath("/html/body/div[1]/div[1]/header/div[2]/div"));
         loginorsignup.click();
         WebElement
inputph=driver.findElement(By.xpath("/html/body/div[1]/div[2]/div[1]/div/div/div/div/div/form/di
v/input"));
         inputph.sendKeys("1234567891");
         WebElement
close=driver.findElement(By.xpath("/html/body/div[1]/div[2]/div[1]/div/div/div[2]/span"));
         close.click();
 @Test(priority=1)
 public void radiotest() {
         WebElement radiochoice=driver.findElement(By.cssSelector("#Airport-transfer > span "));
         radiochoice.click();
 @Test(priority=3)
 public void testone() {
         WebElement pickup =driver.findElement(By.id("downshift-1-input"));
         pickup.sendKeys("Mathikere, Bengaluru, Karnataka, India");
         WebElement drop = driver.findElement(By.id("downshift-2-input"));
         drop.sendKeys("Bagmane Tech Park, Krishnappa Garden, C V Raman Nagar, Bengaluru,
Karnataka, India");
         WebElement
searchcabs=driver.findElement(By.xpath("/html/body/div[1]/section/section[1]/section/div[5]/
button"));
         searchcabs.click();
         System.out.println("Searching cab..");
 @Test(priority=2)
 public void Scrolltest() {
         //Scroll
         Actions scrollpage=new Actions(driver);
```

```
scrollpage.sendKeys(Keys.PAGE DOWN).sendKeys(Keys.PAGE DOWN).pause(2000).sendKeys(K
eys.PAGE UP).build().perform();
   }
    @BeforeTest
    public void beforeTest() {
                            System.out.println("Starting..");
    @AfterTest
    public void afterTest() {
                            System.out.println("Done!!");
    @BeforeSuite
   public void beforeSuite() {
System.set Property ("webdriver.chrome.driver", "C:\Users\Swaroop\Desktop\EclipseWorkspace\chrome.driver", "C:\Users\Swaroop\Desktop\EclipseWorkspace\chrome.driver", "C:\Users\Swaroop\Desktop\EclipseWorkspace\Chrome.driver", "C:\Users\Swaroop\Desktop\EclipseWorkspace\Chrome.driver", "C:\Users\Swaroop\Desktop\EclipseWorkspace\Chrome.driver", "C:\Users\Swaroop\Desktop\EclipseWorkspace\Chrome.driver", "C:\Users\Swaroop\Desktop\New Property ("webdriver.driver", "C:\Users\Swaroop\New Property ("webdriver", "C:\Users\Swaroo
omedriver.exe");
                            driver= new ChromeDriver();
                            driver.get(baseURL);
    @AfterSuite
   public void afterSuite() {
                            driver.close();
Docker Script
FROM eclipse-temurin:17-jdk-alpine
VOLUME /tmp
COPY target/*.jar app.jar
ENTRYPOINT ["java","-jar","/app.jar"]
Jenkins pipeline
pipeline{
agent any
tools {
                                                 // Install the \underline{\text{Maven}} version configured as "M3" and add it to
the path.
                                                 maven "default"
                                                 //<u>jdk</u> "java1"
                        }
```

stages {

```
stage('Maven Build') {
steps {
dir('C:/Users/Swaroop/Desktop/EclipseWorkspace/TaxiService') {
                           bat "mvn -Dmaven.test.skip=true clean package"
                           }
}
stage('Docker Image Creation') {
steps {
dir('C:/Users/Swaroop/Desktop/EclipseWorkspace/TaxiService') {
                           bat "docker build -t taxi --output type=docker ."
}
stage('Docker Hub Push') {
steps {
                           bat "docker tag taxi swaroopav21/taxi"
                     bat "docker push swaroopav21/taxi"
}
}
Pom.xml
project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0"
https://maven.apache.org/xsd/maven-4.0.0.xsd">
 <modelVersion>4.0.0</modelVersion>
 <groupId>TaxiService</groupId>
 <artifactId>TaxiService</artifactId>
 <version>0.0.1-SNAPSHOT
 <dependencies>
      <!-- https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-java -->
      <dependency>
         <groupId>org.seleniumhq.selenium
         <artifactId>selenium-java</artifactId>
         <version>4.10.0
      </dependency>
      <!-- for chrome and for edge we can change in the artifactId -->
      <!-- https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-chrome-driver -->
      <dependency>
         <groupId>org.seleniumhq.selenium</groupId>
         <artifactId>selenium-chrome-driver</artifactId>
         <version>4.10.0
```

```
</dependency>
      <!-- TestNG dependency and the configration file fromln46-->
      <dependency>
                     <groupId>org.testng</groupId>
                     <artifactId>testng</artifactId>
                     <version>7.8.0</version>
                     <scope>compile</scope>
      </dependency>
      <!-- ReportNG dependencies-->
      <dependency>
                     <groupId>org.uncommons
                     <artifactId>reportng</artifactId>
                     <version>1.1.4</version>
      </dependency>
      <dependency>
                     <groupId>com.google.inject</groupId>
                     <artifactId>guice</artifactId>
                     <version>4.2.2</version>
      </dependency>
</dependencies>
<build>
             <plugins>
                     <plugin>
                            <groupId>org.apache.maven.plugins
                            <artifactId>maven-compiler-plugin</artifactId>
                            <configuration>
                                    <source>1.8</source>
                                    <target>1.8</target>
                            </configuration>
                     </plugin>
                     <plugin>
                            <groupId>org.apache.maven.plugins</groupId>
                            <artifactId>maven-surefire-plugin</artifactId>
                            <!-- For testng-->
                            <configuration>
                                    <suiteXmlFiles>
                                           <suiteXmlFile>testng.xml</suiteXmlFile>
                                    </suiteXmlFiles>
                                    <!-- Properties for ReportNg-->
                            properties>
                                           property>
                                                   <name>usedefaultlisteners</name>
                                                   <value>false</value>
                                           </property>
```

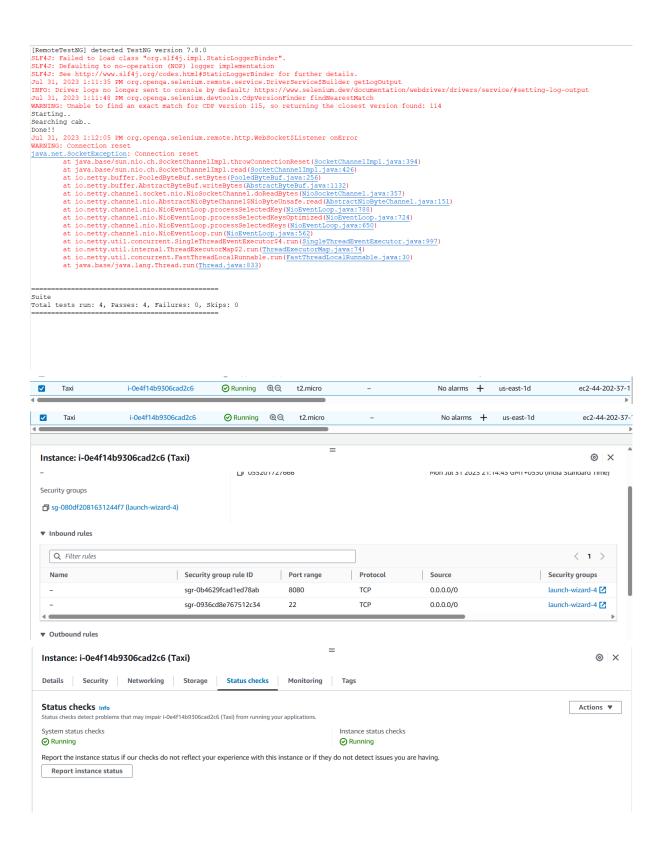
testng.xml

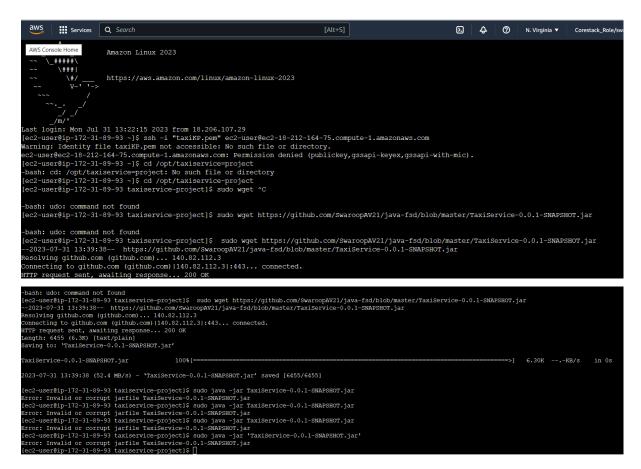
```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
<suite name="Suite">
<test thread-count="5" name="Test" parallel="methods">
<classes>
<class name="com.test.Taxiservicetest"/>
</classes>
</test> <!-- Test -->
</suite> <!-- Suite -->
```

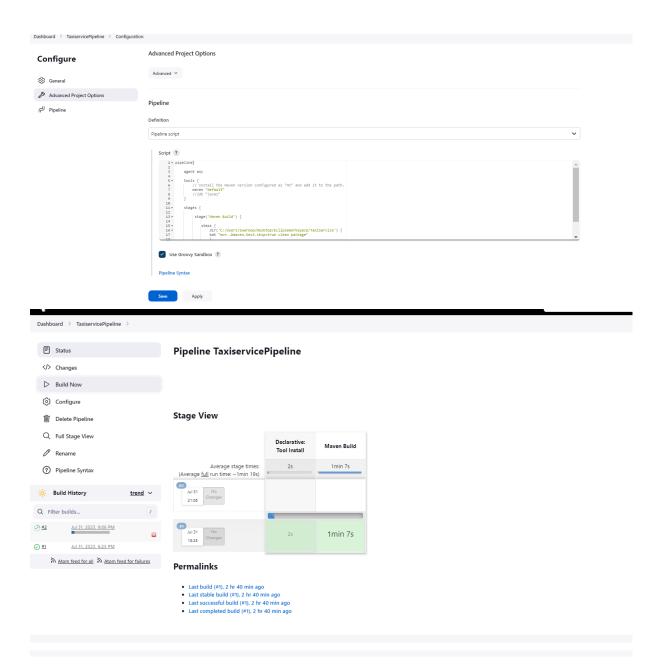
- - > 🕭 src/main/java
 - > # src/main/resources
 - > **#** src/test/java
 - > # src/test/resources
 - ⇒ Mark JRE System Library [JavaSE-1.8]
 - > Maven Dependencies
 - > # target/generated-sources/annotations
 - > # target/generated-test-sources/test-annotations
 - > 🗁 src
 - target
 - > @ generated-sources
 - > 🗁 generated-test-sources
 - > 🗁 maven-archiver
 - > 🗁 maven-status
 - TaxiService-0.0.1-SNAPSHOT.jar
 - > 🗁 test-output
 - Dockerfile
 - Jenkins.txt
 - pom.xml
 - x testng.xml

imes for Suite				
N	lumber	Method	Class	Time (ms)
	0	Scrolltest	com.test.Taxiservicetest	2,809
	1	testone	com.test.Taxiservicetest	648
	2	logintest	com.test.Taxiservicetest	368
	3	radiotest	com.test.Taxiservicetest	264

	1 suite	
com.test.Taxiservicetest		
Scrolltest		
logintest		
radiotest		
testone		







Onsole Output

```
Started by user Swarcop A V
[Pipeline] Start of Pipeline
[Pipeline] node

Running on Jeekins in Ci\ProgramData\Jenkins\,jenkins\workspace\TaxiservicePipeline
[Pipeline] {
[Pipeline] stage
[Pipeline] {
[Pipeline] ond
[Pipeline] ond
[Pipeline] {
[Pipeline] vistage
[Pipeline] /
[Pipeline] vistage
[Pipeline] /
[Pipeline
```

```
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

```
Building an image in docker and pushing it to docker hub
swaroopymphasis@ip-172-31-82-53:-/Desktop$ docker build -t tax1 --output type=docker Sending build context to Docker daemon 21.5kB Step 1/4 : FROM eclipse-temurin:17-jdk-alpine 17-jdk-alpine: Pulling from library/eclipse-temurin 31e352740f53: Pull complete 8aadc9aaa732: Pull complete 8eaf3196661f: Pull complete 5463adbbb67d: Pull complete 5463adbbb67d: Pull complete 5563adbbb67d: Pull complete 5563adbb67d: Pull complete 5563adbbb67d: Pull complet
      ---> 31bced4949df
 ---> 31bced4949df
Step 2/4 : VOLUME /tmp
---> Running in 341b0e4a558b
Removing intermediate container 341b0e4a558b
---> 6bf91795fd2e
Step 3/4 : COPY target/*.jar app.jar
COPY failed: no source files were specified swaroopvmphasis@ip-172-31-82-53:~/Desktop$
  swaroopvmphasis@ip-1/2-31-82-53:~/Desktop$ docker images
  REPOSITORY
                                                                              TAG
                                                                                                                                                            IMAGE ID
                                                                                                                                                                                                                                       CREATED
                                                                                                                                                                                                                                                                                                                     SIZE
                                                                                                                                                           6bf91795fd2e
  taxi
                                                                              latest
                                                                                                                                                                                                                                       6 minutes ago
                                                                                                                                                                                                                                                                                                                    300MB
                                                                                                                                                                                                                                                                                                                     300MB
                                                                                                                                                           31bced4949df
 eclipse-temurin
                                                                              17-jdk-alpine
                                                                                                                                                                                                                                       5 days ago
  hello-world
                                                                              latest
                                                                                                                                                           bf756fb1ae65
                                                                                                                                                                                                                                        3 years ago
                                                                                                                                                                                                                                                                                                                     13.3kB
  swaroopvmphasis@ip-172-31-82-53:~/Desktop$
        aroopvmphasis@ip-172-31-82-53:~/Desktop$ docker image ls
POSITORY TAG IMAGE ID
xii latest 6bf91795fd2e
  REPOSITORY
                                                                                                                                                                                                             CREATED
                                                                                                                                                                                                                                                                                 SIZE
                                                                                                                                                                                                                                                                                 300MB
300MB
                                                                                                                                                                                                            21 minutes ago
21 minutes ago
5 days ago
  taxii
                                                                     latest
17-jdk-alpine
                                                                                                                                         6bf91795fd2e
  taxi
                                                                                                                                         31bced4949df
                                                                                                                                                                                                                                                                                  300MB
  eclipse-temurin
 hello-world latest bf756fblae65 3 years ago 13.3kB swaroopvmphasis@ip-172-31-82-53:~/Desktop$ docker tag taxi:latest swaroopav21/taxiimage:taxiimg swaroopvmphasis@ip-172-31-82-53:~/Desktop$ docker push swaroopav21/taxiimage:taxiimg
The push refers to repository [docker.io/swaroopav21/taxiimage]
  23d7182b8e52: Pushed
  644a85248299: Pushed
  4aab2363d488: Pushed
  78a822fe2a2d: Pushed
 taxiimg: digest: sha256:ee56dc8d6132d22ba04fd0b71b2359b84e457d81ecb663daead373a1b7333854 size: 1159 swaroopvmphasis@ip-172-31-82-53:~/Desktop$
                    docker hub Q Search Docker Hub
                                                                                                                                                                                                                                                                                                        swaroopav21 ▼
                                                                                                                             Explore Repositories Organizations Help -
                                                                             ▼ Search by repository name Q All Content
                                                                                                                                                                                                                              Create repository
                          swaroopav21
```

